

REMARKS:

In the outstanding Office Action, claims 1-6 were rejected and claims 7 and 8 were not examined. New claim 9 has been added. No new matter has been added. Thus, in view of the forgoing claims 1-9 remain pending for consideration. The Examiner's rejections are traversed below.

INDEPENDENT CLAIMS 5-8:

At page 2 of the outstanding Office Action, the Examiner states that claims 1-6 are presented for examination. The Applicants respectfully point out that independent claims 7 and 8 are also presented for examination, and request consideration of the same.

Further, the Examiner only provides specific comments concerning claims 1-4. Applicants also respectfully request examination of independent claims 5 and 6.

REJECTION UNDER 35 U.S.C. §102(b):

At item 3 of the outstanding Office Action, claims 1-6 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,452,451 ('451).

'451 discusses a symbol string search method including a judgment is made of whether divided symbol strings of interest exist in a symbol string to be searched by successively using the divided symbol strings as search conditions.

The present invention is directed to a full text search system and method using a plurality of search processing apparatuses in parallel where data is updated even when search processing is being executed.

The Examiner seems to compare the '451 system that divides symbol strings of interest into at least two partial symbol strings for sequential searches using the same with the full text search system of the present invention. The '451 method determines whether a plurality of symbol strings of interest that are to be searched for, exist within a symbol string to be searched, which is composed of symbols represented by codes (see, column 5, lines 8-13 of '451). Upon a search of a plurality of character strings at one time during a text scan in a full-text search, each of the plurality of symbol strings of interest are divided into at least two partial symbol strings at any position thereof (see, column 5, lines 13-21 of '451). Then, each of the

plurality of symbol strings of interest are subjected to a processing for collation with the symbol string to be searched (see, column 5, lines 21-25 of '451). The symbol strings of interest satisfying search conditions on the partial symbol strings subjected to the collation processing, are subjected to a processing for collation of the remaining partial symbol strings with the symbol string to be searched (see, column 5, lines 25-31 of '451). This means that the partial symbol strings resulting from division of the symbol strings of interest are used as search conditions to sequentially execute searches.

As recited in independent claims 1, 5 and 6, the present invention enables parallel execution of search requests using "a plurality of search processing apparatuses in which locations of search-target character string data and character string search conditions are instructed" based on which "search results responding to the instructions are accordingly outputted". Further, "search-target character string data is divided into a group of character string records and allocated to one or more of the plurality of search processing apparatuses" where "given character string search conditions are transmitted to each of the search processing apparatuses as search instructions" and search results received from each of the search processing apparatuses and are integrated (see, claims 1, 5 and 6). This is unlike the '451 method where a divided symbol string constitutes search conditions. The '451 method does not teach or suggest "dividing" search-target character string data, allocating the divided portions of the search-target data to a plurality of search processing apparatuses, nor integrating search results from the search processing apparatuses.

The Applicants respectfully assert that each and every element as set forth in the claims is not found to be either expressly or inherently described in a single '451 per the requirement of MPEP § 2131. Further, the Applicants assert that claims 5-8 that are not addressed by the Examiner recite distinguishable features in light of the '451 reference.

It is therefore submitted that the independent claims are patentable over '451.

For at least the above-mentioned reasons, claims depending from independent claims 1, 5-8 are patentably distinguishable over '451. The dependent claims are also independently patentable. For example, as recited in claim 2, an update result reflection unit is provided where "... old records before being updated corresponding to the new records stored in the update temporary memory unit is deleted from the search-target character string data, and the new records are incorporated into the search-target character string data". The '451 method does not teach or suggest instructing "new character string records stored in the update temporary

memory unit ... to any one of the search processing apparatuses determined in advance as a part of the search-target character string data", where "... old records before being updated corresponding to the new records stored in the update temporary memory unit is deleted from the search-target character string data, and the new records are incorporated into the search-target character string data".

Therefore, withdrawal of the rejection is respectfully requested.

NEW CLAIM:

New claim 9 has been added to emphasize that a full text search method of the present invention includes, "receiving a plurality of search requests from terminals requesting to search a search target data having character strings" and "executing the plurality of search requests from the terminals in parallel via a plurality of search processing apparatuses". Further, as recited in new claim 9, the full text search method includes, "automatically adding new data to the search target data based on request from at least one of the terminals while the plurality of search requests are processed", where "the search target data is logically divided into regions to correspond to the plurality of search processing apparatuses and the regions are allocated to the plurality of search processing apparatuses for executing searches based on the plurality of search requests". This enables large data of a search target to be updated while search operations are being processed. The '451 method does not teach or suggest "executing the plurality of search requests from the terminals in parallel via a plurality of search processing apparatuses" and regions of a search target data that is "logically divided".

Thus, new claim 9 is patentably distinguishable over '451.

CONCLUSION:

In accordance with the foregoing, claim 9 has been added. Thus, claims 1-9 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If any further fees, other than and except for the issue fee, are necessary with respect to this paper, the U.S.P.T.O. is requested to obtain the same from deposit account number 19-3935.


Respectfully submitted,

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